



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,999	04/05/2002	Edward E Tapanes	07082.0003U1	5824

23859 7590 11/17/2003

NEEDLE & ROSENBERG, P.C.  
SUITE 1000  
999 PEACHTREE STREET  
ATLANTA, GA 30309-3915

EXAMINER

GIBSON, RANDY W

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/089,999	TAPANES ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Randy W. Gibson	2841	

-- The MAILING DATE of this communication appears on the cover sheet with correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04/05/02 (preliminary amendment).
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1</u> | 6) <input type="checkbox"/> Other:  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 12, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Tromp (US # 4,799,381). Given its broadest reasonable interpretation, the phrase "below the surface" in the claims simply implies that the device is recessed enough that it does not protrude noticeably above the top of the roadway (Surface: "the exterior or upper boundary of an object or body"; *Websters 9<sup>th</sup> New Collegiate Dictionary*, ©1990). Likewise, the term "bore hole" seems to imply any type of artificially made cut in the roadway. The claims as worded do not specify that the hole is cut through the subsurface layers only of an existing roadway while leaving the existing top asphalt or concrete layer more or less intact -- which appears to be the applicant's only disclosed embodiment (Written Description, pp. 39-40). It is also unclear if rewording the apparatus claims to include a definition of "surface" and "bore hole" would make a difference in an apparatus (not method) claim since the final product would seem to be the same anyway if a trench were cut down through the surface asphalt into the subsurface, a sensor was inserted into the trench, and then the trench was backfilled

and paved over as is done with some conventional roadway weight sensors that one encounters everyday at intersections for controlling traffic lights.

Tromp discloses a weigh station for a vehicle in motion including a subsurface bore hole (11), a load sensing device (10) located inside a U-shaped substrate (30) or inside a substrate formed of a flat beam inside a hollow conduit (Fig. 7) located beneath the road surface (Col. 3, lines 1-7 & 44-54; Col. 4, lines 35-62; Col. 6, lines 24-36), where the load sensing device consists of a plurality of resistive strain gages (Col. 5, lines 1-25) for weighing a vehicle in motion (Col. 3, lines 13-16; Col. 5, line 45 to col. 6, line 23).

3. Claims 22 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Tromp. As discussed *supra*, the terms "bore hole" and "surface" are poorly defined, and given their broadest reasonable interpretation, read on the method disclosed in the reference (Col. 3, lines 44-53; Col. 4, lines 35-46; Col. 6, lines 24-37).

4. Claims 1-5, 9-12, 15, 21, 22, and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Siffert et al (US # 4,712,423). Siffert et al discloses a weigh station for a vehicle in motion including a subsurface bore hole (24), a load sensing device (1,2) located inside a U-shaped substrate (21) or inside a substrate formed of a flat beam inside a hollow conduit located beneath the road surface (Col. 2, lines 32-42; Col. 5, lines 14-39), for weighing a vehicle in motion (Col. 1, lines 6-31; Col. 3, lines 20-25), and an axle sensor (Col. 3, lines 26-31) which is a piezo-electric strip (Col. 3, lines 14-

19). As discussed *supra*, the terms "bore hole" and "surface" are poorly defined, and given their broadest reasonable interpretation, read on the structure disclosed in the reference.

5. Claims 1-5, 7-14, 16-22, 25-28 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Muhs et al (US # 5,260,520). See Figure 15 and column 4, line 59 to col. 5, line 63. As discussed *supra*, the terms "bore hole" and "surface" are poorly defined, and given their broadest reasonable interpretation, read on the structure disclosed in the reference.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muhs et al. The method step of cutting a working trench parallel to the road way to facilitate cutting of the sensor trench would have been obvious to the ordinary practitioner whenever the terrain made it necessary to cut such an extra trench motivated by the desire to provide adequate room for the highway crews to work. Backfilling of the trench after it was no longer needed would have also been obvious to the ordinary

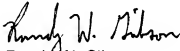
practioner motivated by the desire to prevent erosion and to make the roadside more aesthetically pleasing to the motorists.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy W. Gibson whose telephone number is (703) 308-1765. The examiner can normally be reached on Mon-Fri., 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S Martin can be reached on (703) 308-3121. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-5115.

  
Randy W. Gibson  
Primary Examiner  
Art Unit 2841